



CRICKET SCORE STATISTICAL CALCULATOR

¹R.Shirisha, ²G.Venu, ³V.Ankitha, ⁴K.Vamshi

¹Assistant Professor, ^{2,3,4}Students

Department of CSE(Data Science)

Siddhartha institute of technology & sciences,narapally

shirisharangu.cse@siddhartha.co.in, 23TQ1A6708@siddhartha.co.in,

23TQ1A6746@siddhartha.co.in, 23TQ1A6716@siddhartha.co.in

ABSTRACT

Cricket is one of the most popular sports in the world, and analyzing player and team performance requires accurate statistical calculations. The Cricket Score Statistics Calculator is a mini project designed to simplify the process of calculating and analyzing cricket match statistics. This system allows users to enter match details such as runs scored, balls faced, overs bowled, wickets taken, and extras, and automatically generates important performance metrics. The calculator computes key statistics including strike rate, run rate, batting average, bowling average, and economy rate, helping users quickly understand the performance of players and teams. The project aims to reduce manual calculation errors and provide instant results through a simple and user-friendly interface. This mini project is useful for students, cricket enthusiasts, and beginners who want to learn how statistical calculations are applied in sports analytics. The system demonstrates basic programming concepts such as input handling, mathematical computations, and data processing. Overall, the Cricket Score Statistics Calculator serves as an educational tool that highlights the role of statistics in modern cricket analysis.

I INTRODUCTION

Cricket is one of the most widely followed sports across the world, especially in countries like India, where millions of fans closely track match performances and player statistics. In modern cricket, statistics play an important role in evaluating the performance of players and teams. Measures such as strike rate, batting average, run rate, and economy rate help analysts, coaches, and fans understand the effectiveness of players during a match. Traditionally, cricket statistics were calculated manually, which could be time-consuming and prone to calculation errors. With the advancement of computer technology and programming, it is



possible to automate these calculations and generate results instantly. A Cricket Score Statistics Calculator is a system designed to simplify this process by allowing users to input match data and automatically compute important statistical values. This mini project focuses on developing a simple application that calculates various cricket performance metrics based on the data entered by the user. The system processes inputs such as runs scored, balls faced, overs bowled, wickets taken, and runs conceded to generate useful statistics like strike rate, run rate, batting average, bowling average, and economy rate. The main purpose of this project is to demonstrate how programming and basic mathematical formulas can be applied to sports analytics. It also helps users better understand cricket statistics while providing a quick and reliable way to analyze match performance. The Cricket Score Statistics Calculator can therefore serve as an educational tool for students and cricket enthusiasts interested in learning the relationship between sports and data analysis.

II LITERATURE SURVEY

The study of cricket statistics and performance analysis has been an area of interest for both sports analysts and computer science students. Traditionally, cricket statistics such as batting average, strike rate, run rate, bowling average, and economy rate were calculated manually using paper records and standard formulas. While effective, this method is prone to human errors and consumes significant time, especially when handling multiple matches or players. Several software tools and applications have been developed to assist in cricket scorekeeping and statistical analysis. For example, professional software like CricHQ and ESPN Cricinfo Statsguru provide advanced statistical insights for players and teams, but these platforms are often complex and not easily adaptable for educational purposes or small-scale projects. In academic research and mini projects, many studies have focused on developing simplified cricket score calculators using programming languages such as Python, C++, and Java. These systems aim to automate calculations for batting and bowling statistics, provide real-time updates, and present data in a user-friendly manner. Such projects highlight the role of computational methods in sports analytics, emphasizing accuracy, efficiency, and accessibility. From the literature, it is clear that while professional statistical tools exist, there is a need for lightweight, user-friendly applications for learning and practical analysis at the student or amateur level. The proposed Cricket Score Statistics Calculator builds on these studies by providing a simple system for quick, reliable cricket performance evaluation and demonstrating the application of programming in sports analytics.

III SYSTEM ANALYSIS



The Cricket Score Statistical Calculator is designed to provide accurate and real-time statistical analysis of cricket matches. The system collects data such as runs scored, wickets taken, overs bowled, and individual player performances to generate comprehensive statistics. The existing manual methods of calculating cricket scores are time-consuming, prone to human error, and often fail to provide detailed insights during live matches. This system automates score calculation, computes batting and bowling averages, strike rates, partnerships, and match projections, enabling coaches, analysts, and fans to track performance efficiently. It also offers graphical representations, comparisons of players' performances, and predictive analysis for upcoming games. The system is intended to work for multiple formats of cricket, including Test, ODI, and T20, providing flexibility and accuracy in data reporting and decision-making.

Existing system

In the **existing cricket scoring system**, most matches rely on manual scorekeeping methods using pen, paper, or basic spreadsheets. Scorers record runs, wickets, overs, and player performances during the game, and calculations such as batting averages, strike rates, and run rates are often done after the match or using simple calculators. This process is slow, error-prone, and does not provide real-time analysis or insights during the game. Additionally, comparing player performances, tracking partnerships, or predicting outcomes is difficult and requires significant effort. The lack of automation and advanced statistical tools limits the usefulness of the data for coaches, analysts, and fans who need quick, accurate, and detailed performance information.

Disadvantages of existing system

- Manual scorekeeping is time-consuming and requires constant attention during the match.
- High risk of human error in recording runs, wickets, overs, and player statistics.
- Real-time analysis of the match is not possible, limiting decision-making during the game.
- Calculating advanced statistics like strike rate, batting/bowling averages, or partnerships is tedious and often delayed.
- Comparisons between players or teams are difficult without proper tools.

Proposed system

The **proposed cricket score statistical calculator system** is designed to automate and simplify the process of scoring and analyzing cricket matches. It collects live



match data, including runs, wickets, overs, and individual player performances, and instantly calculates important statistics such as batting averages, strike rates, bowling averages, run rates, and partnerships. The system can generate detailed reports, graphical representations, and comparisons between players and teams, providing coaches, analysts, and fans with real-time insights. Additionally, it includes predictive analysis features to forecast match outcomes and player performances. By integrating advanced computation and data visualization, the system ensures accuracy, speed, and accessibility, making it suitable for all formats of cricket, including Test, ODI, and T20 matches. This automated approach significantly reduces human error and enhances decision-making during the game.

Advantages of proposed system

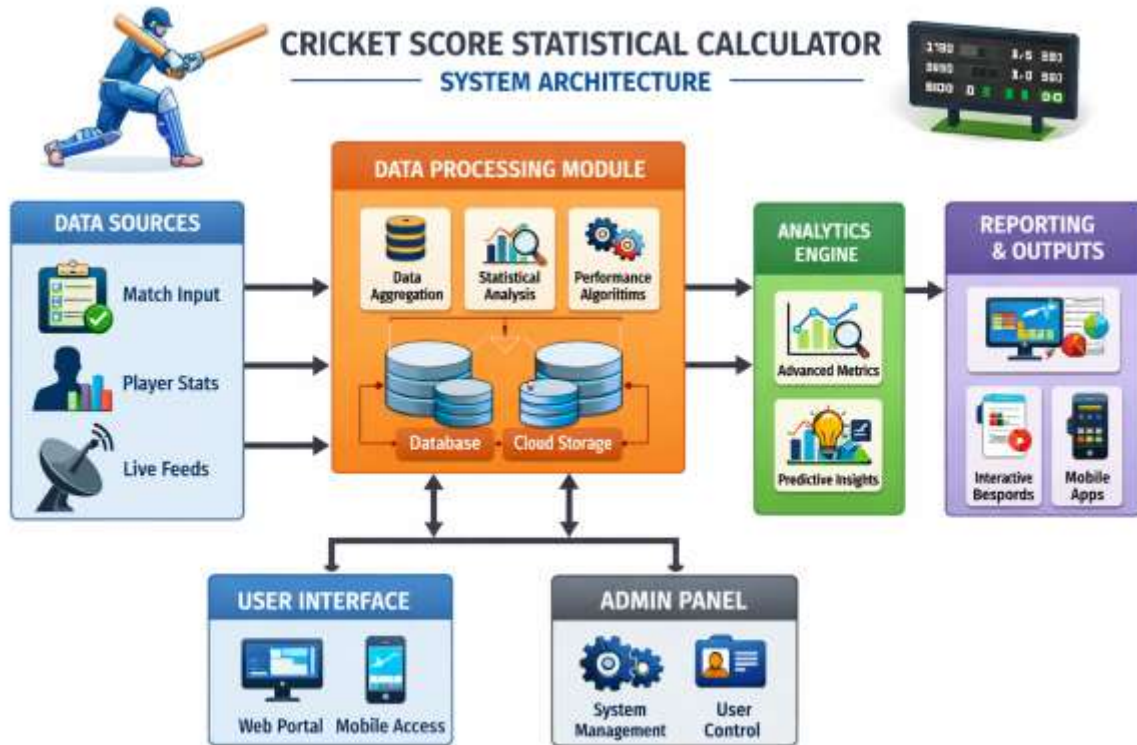
- **Automates scoring**, reducing manual effort and saving time during matches.
- **Minimizes human error**, ensuring accurate recording of runs, wickets, and overs.
- **Provides real-time analysis** of the match, helping coaches and analysts make quick decisions.
- **Calculates advanced statistics** like batting averages, strike rates, bowling averages, and partnerships instantly.
- **Generates graphical reports** and visualizations for better understanding of player and team performance.

IV METHODOLOGY

The methodology of the Cricket Score Statistics Calculator project explains the steps followed to design and implement the system for calculating cricket statistics. First, the requirements of the system are identified. In this step, the important cricket statistics that need to be calculated are determined, such as total runs, strike rate, run rate, batting average, overs, and wickets. Next, the data collection and input process is designed. The user enters match details such as runs scored, balls faced, overs bowled, and wickets taken through a simple user interface. This data serves as the input for the system. After collecting the input data, the processing stage begins. In this step, the system applies predefined formulas to calculate cricket statistics. For example, the system calculates strike rate, run rate, and batting average based on the entered values. Once the calculations are completed, the results are displayed to the user. The calculated statistics are shown clearly on the screen so that users can easily understand player and team performance. Finally, the system is tested and validated to ensure that the calculations are accurate and the program works properly with different input values. This step helps in identifying and correcting errors to improve the reliability of the calculator. Thus, the methodology ensures a systematic process for

developing the Cricket Score Statistics Calculator, making it simple, accurate, and efficient for analyzing cricket match statistics.

System Architecture



The System Design of the Cricket Score Statistics Calculator explains how the system is structured to collect input, process the data, and display cricket statistics. The system is designed with a simple and user-friendly interface where users can enter cricket match details such as runs scored, balls faced, overs bowled, and wickets taken. This input is provided through input fields or forms in the application. After the user enters the required data, the system processes the information using predefined cricket formulas. During this stage, the program calculates important statistics such as strike rate, run rate, batting average, total runs, and bowling statistics. The processing is done using programming logic written in languages such as Python or JavaScript.

V RESULTS&OUTPUT



International Journal of DATA SCIENCE AND IOT MANAGEMENT SYSTEM

Peer Reviewed, Referred & Indexed Journal

ISSN: 3068-272X

www.ijdim.com

Original Research Paper

Runs Scored

Balls Faced

Number of 4s

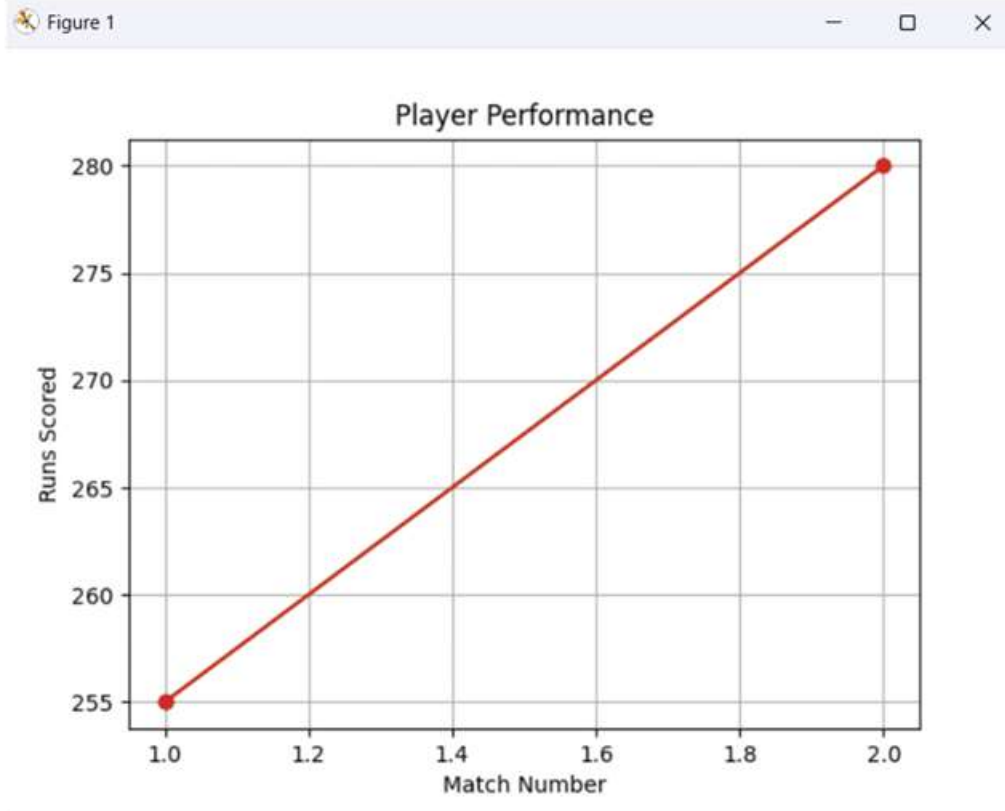
Number of 6s

Add Match Data

Show Statistics

Show Performance Graph

Save to CSV



VI CONCLUSION

The Cricket Score Statistics Calculator project provides a simple and effective way to calculate important cricket statistics such as total runs, strike rate, run rate, batting average, and wickets. The system helps in reducing manual calculation errors and saves time by generating quick and accurate results. It offers a user-friendly interface where users can easily enter match data and obtain useful statistical information. This project is helpful for students, cricket enthusiasts, and analysts who want to understand and analyze cricket performance. Overall, the system improves the process of cricket score calculation and makes statistical analysis easier and more efficient. In the future, the project can be enhanced with additional features such as live score updates, graphical analysis, and database support to make it more powerful and useful. By automating scorekeeping, calculations, and performance analysis, the system overcomes the limitations of manual methods and reduces human error. It offers real-time insights, predictive analysis, and graphical reporting, making it a valuable tool for coaches, analysts, players, and fans. The system's ability to store historical data, compare



performances, and support all formats of cricket ensures comprehensive match management and strategic decision-making. Overall, this system enhances the cricket experience by combining technology with statistical precision, enabling better planning, monitoring, and evaluation of the game.

REFERENCE

- [1] Kumar, R. D., Prudhviraaj, G., Vijay, K., Kumar, P. S., & Plugmann, P. (2024). Exploring COVID-19 through intensive investigation with supervised machine learning algorithm. In Handbook of Artificial Intelligence and Wearables (pp. 145-158). CRC Press.
- [2] Swathi, B., Vijay, K., Sushanth Babu, M., & Dinesh Kumar, R. (2024, November). Machine Learning Techniques in Cloud Based Intrusion Detection. In The International Conference on Artificial Intelligence and Smart Environment (pp. 557-564). Cham: Springer Nature Switzerland.
- [3] Sv satyakrishna, shirisha rangu ,bhargavi nalacheruve.(2024) Prospective investigation on colorectal cancer with SMOTE on machine learning Algorithm
- [4] Dr.G.Vishnu Murthy, BhargaviNalacheruve 1Professor, Department of computer Science & engineering, Anurag University, TS, India. 2Student, Department of computer Science & engineering, Anurag University, TS, India.
- [5] V. N. S. Manaswini, K. K, C. Nigam, S. S. Ali, R. Niranjana, and Suman, “Real-Time Object Detection in Drone Surveillance Using YOLOv5,” in Proc. 2025 3rd Int. Conf. IoT, Communication and Automation Technology (ICICAT), Gorakhpur, India, 2025, pp. 1–6, doi: 10.1109/ICICAT68430.2025.11414670.
- [6] B. Soundarya, V. N. S. Manaswini, M. Ayyakrishnan, R. D. Kumar, “Contextual Analysis of Big Data Analytics in Intelligent Transportation Frameworks,” in Intersection of Artificial Intelligence, Data Science, and Cutting-Edge Technologies: From Concepts to Applications in Smart Environment, Lecture Notes in Networks and Systems, vol. 1353, Cham: Springer, 2025, doi: 10.1007/978-3-031-88304-0_79.
- [7] R. D. Kumar, V. N. S. Manaswini, “Applications of blockchain in smart cities: detecting fake documents from land records using blockchain technology,” in Blockchain for Smart Cities, Elsevier, 2021, pp. 105–117, doi: 10.1016/B978-0-12-824446-3.00017-X.
- [8] Tejavath Veeramma, Badarla Anil, Guguloth Ravinder, “An advanced movie recommender using collaborative filtering and sentiment analysis,” International Research Journal of Modernization in Engineering Technology and Science, vol. 7, no. 7, July 2025, doi: 10.56726/IRJMETS81618.



International Journal of DATA SCIENCE AND IOT MANAGEMENT SYSTEM

Peer Reviewed, Referred & Indexed Journal

ISSN: 3068-272X

www.ijdim.com

Original Research Paper

- [9] Ravi Kumar Banoth, Ramana Murthy B V, “Automatic crop recommendation system using LightGBM and decision tree machine learning models,” *Journal of Machine and Computing*, vol. 5, no. 1, pp. 343, Jan. 2025, doi: 10.53759/7669/jmc202505026.
- [10] Ravi Kumar Banoth, Dr. B.V. Ramana Murthy, “Smart agriculture through IoT and machine learning for analyzing carbon footprints,” in *Proc. Int. Conf. Computer Science and Communication Engineering (ICCSCE)*, Apr. 2025.
- [11] Ravi Kumar Banoth, B. V. Ramana Murthy, “Soil image classification using transfer learning approach: MobileNetV2 with CNN,” *SN Computer Science*, vol. 5, art. no. 199, 2024, doi: 10.1007/s42979-023-02500-x.